

Quantum Workshop DESY

Report of Contributions

Contribution ID: 1

Type: **not specified**

Enhancing Physics-Informed Neural Networks with Quantum Computing and Quantum-Inspired Methods

Monday 12 May 2025 15:30 (30 minutes)

Presenter: GOLDACK, Miriam (CQTA (Centre f. Quantum Techno. a. Application))

Contribution ID: 2

Type: **not specified**

TBA

Wednesday 14 May 2025 15:00 (30 minutes)

Presenter: ANGELIDES, Takis

Contribution ID: 3

Type: **not specified**

Quantum learning models: complexity, generalization and abstraction

Monday 12 May 2025 11:30 (30 minutes)

Presenter: HONG, Yu (CQTA (Centre f. Quantum Techno. a. Application))

Contribution ID: 4

Type: **not specified**

TBA

Contribution ID: 5

Type: **not specified**

Stroll in Treptower Park

Wednesday 14 May 2025 10:00 (2h 30m)

Contribution ID: 6

Type: **not specified**

Scaling tests in the Hamiltonian Formalism

Tuesday 13 May 2025 15:00 (30 minutes)

Presenter: SCHWAEGERL, Tim (Z_ET (Teilchenphysik))

Contribution ID: 7

Type: **not specified**

Open lattice theory questions

Presenter: SINGH, Simran

Contribution ID: 8

Type: **not specified**

Effective strings for confining gauge theories

Tuesday 13 May 2025 14:30 (30 minutes)

Presenter: VERZICHELLI, Lorenzo

Contribution ID: 9

Type: **not specified**

Constructing invariants and gauge singlets in $SU(N)$ matrix models

Tuesday 13 May 2025 13:00 (30 minutes)

Presenter: CAZALIS, Jean

Contribution ID: **10**

Type: **not specified**

TBA

Tuesday 13 May 2025 13:30 (30 minutes)

Presenter: NAREDI, Pranay (The Cyprus Institute)

Contribution ID: **11**

Type: **not specified**

Discussions

Monday 12 May 2025 16:00 (1h 30m)

Contribution ID: 12

Type: **not specified**

Simulating the Hubbard Model with Normalizing Flows

Monday 12 May 2025 13:00 (30 minutes)

Presenter: SCHUH, Dominic

Contribution ID: 13

Type: **not specified**

Enhancing Normalizing Flows with Symmetry-Enforcing Stochastic Modulation

Monday 12 May 2025 13:30 (30 minutes)

Presenter: KREIT, Janik

Contribution ID: 14

Type: **not specified**

Stochastic Normalizing Flows, Defects and Topological Freezing

Monday 12 May 2025 14:30 (30 minutes)

Presenter: BULGARELLI, Andrea

Contribution ID: 15

Type: **not specified**

(Post-)Quantum TOR via Isogeny Graphs

Wednesday 14 May 2025 14:30 (30 minutes)

Presenter: AGATHOCLEOUS, Eleni

Contribution ID: 16

Type: **not specified**

Processing Through Encoding: An approach for Pointwise Multiplication and Convolution on a Quantum Computer

Monday 12 May 2025 11:00 (30 minutes)

Presenter: PAPAGEORGIOU, Andreas

Contribution ID: 17

Type: **not specified**

Multilevel Generative Samplers for Investigating Critical Phenomena

Monday 12 May 2025 15:00 (30 minutes)

Presenter: NICOLI, Kim

Contribution ID: **18**

Type: **not specified**

Measuring distributability of quantum circuits in modular architectures

Wednesday 14 May 2025 13:30 (30 minutes)

Presenter: GAGO ENCINAS, Fernando (CQTA (Centre f. Quantum Techno. a. Application))

Contribution ID: 19

Type: **not specified**

Strategies for Preparing Tensor Network States without Canonical Form Using Quantum Circuits

Monday 12 May 2025 10:30 (30 minutes)

Presenter: GUO, Yibin (CQTA (Centre f. Quantum Techno. a. Application))

Contribution ID: **20**

Type: **not specified**

Discussions

Tuesday 13 May 2025 16:00 (1h 30m)

Contribution ID: 23

Type: **not specified**

Optimizing error-mitigated inference runs of pure gauge QED (2+1 D) energy differences

Tuesday 13 May 2025 11:00 (30 minutes)

Presenter: ITABORAI DE BARROS, Paulo Vitor (CQTA (Centre f. Quantum Techno. a. Application))

Contribution ID: **24**

Type: **not specified**

TBA

Contribution ID: **29**

Type: **not specified**

TBA

Contribution ID: **30**

Type: **not specified**

Hamiltonian Lattice Formulation of Compact Maxwell-Chern-Simons Theory

Tuesday 13 May 2025 09:30 (30 minutes)

Presenter: FUNCKE, Lena

Contribution ID: 31

Type: **not specified**

Variational Quantum Eigensolver for (2+1)D Quantum Electrodynamics at Finite Density

Tuesday 13 May 2025 10:00 (30 minutes)

Presenter: ROSANOWSKI, Emil

Contribution ID: 32

Type: **not specified**

Towards Quantum Simulation of Meson Scattering in Z2 Lattice Gauge Theory: Subspace Expansion and Circuit Decomposition for Wave Packet Preparation

Tuesday 13 May 2025 11:30 (30 minutes)

Presenter: CHAI, Yahui (CQTA (Centre f. Quantum Techno. a. Application))

Contribution ID: **33**

Type: **not specified**

TBA

Contribution ID: 34

Type: **not specified**

Simulation of QCNNs using LOWESA

Wednesday 14 May 2025 13:00 (30 minutes)

Presenter: ELHAG, Hala Siddig Mohamed (CQTA (Centre f. Quantum Techno. a. Application))

Contribution ID: 35

Type: **not specified**

Discussions

Contribution ID: **41**

Type: **not specified**

Discussions

Wednesday 14 May 2025 16:00 (2 hours)

Contribution ID: 43

Type: **not specified**

TBA